

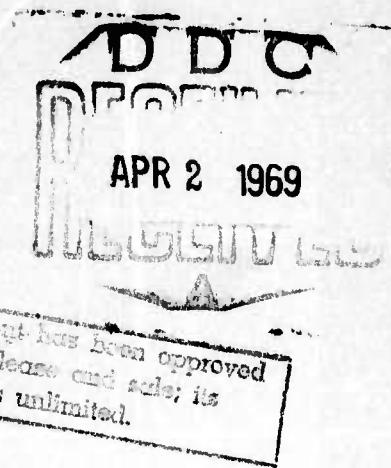
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**MEDIATION AS AN AID
TO FACE SAVING IN NEGOTIATION**

by
DEAN G. PRUITT

and
DOUGLAS F. JOHNSON



**DEPARTMENT OF PSYCHOLOGY
STATE UNIVERSITY OF NEW YORK
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MEDIATION AS AN AID TO FACE SAVING IN NEGOTIATION¹

Dean G. Pruitt and Douglas F. Johnson

State University of New York at Buffalo

ABSTRACT

The suggestion by a mediator of a point of settlement half-way between the positions of two negotiators was found to produce substantial concessions. Concessions were also produced by high, as opposed to low, time pressures; and there were more concessions when the other negotiator had moved rapidly toward agreement than when he had moved slowly. Contrary to the main hypotheses, the effectiveness of mediation was not a function of the degree of time pressure or the rapidity with which the other negotiator had moved. Nevertheless, some of the reasoning underlying the main hypotheses was supported: intervention by a mediator was found to relieve the sense of personal inadequacy that otherwise inheres in making concessions; and this effect was especially prominent ($p = .10$) under the condition of high time pressure and little movement from the other, which presumably produces conflict about whether or not to make concessions. Evaluative and dynamism dimensions were found in the semantic-differential ratings of self and the other negotiator. Perceived competitiveness and unwillingness to yield were elements of the own-dynamism dimension but formed a separate dimension with respect to the other negotiator. The only dimension containing perceptions of both the self and the other involved perceived hostility.

INTRODUCTION

For agreement to be reached in negotiation, it is often necessary to bring in a mediator. A mediator can intervene in a number of ways, and his success may be due to a variety of mechanisms (Young, 1967). One such mechanism, which pertains to negotiations between representatives, is described by Stevens (1963): A recommendation from a mediator may help the negotiator save face with his constituents while moving toward agreement, because he can shift responsibility for his concessions to the mediator and therefore not appear weak or derelict in his role. In Stevens' words, "In this way the posture in retreat is more comfortable. The (negotiator) has been constrained by the mediator, not by his opponent, and he lives to fight again without what might otherwise be significant impairment of his status." (p. 134)

Stevens' analysis can be applied, in modified form, to negotiations involving individuals acting on their own behalf. Presumably many people see concessions in negotiation as a sign of their own personal inadequacy and are therefore reluctant to make them. But if a mediator suggests that a concession be made, and if he seems reasonable and fair as a person, a negotiator can rationalize a concession by telling himself that he is not being weak but rather intelligent to follow the lead of a worthy consultant. In a sense, the mediator helps him save face with himself.

These ideas provide a basis for speculating about the conditions under which mediation will be most effective in producing concessions. A mediator's suggestions should have the greatest impact when the negotiator to whom they are presented is most in conflict between a need to make concessions and a need to appear adequate or strong.

In such a conflict, the negotiator will feel free to make the concessions he would like to make only if the mediator's suggestions relieve him of concern about appearing inadequate or weak. Both needs are presumably present to some degree at all times in negotiation. Hence strengthening either need should intensify the conflict between them and thereby heighten the effectiveness of mediation.

A need to make concessions can be produced by time pressures (Pruitt and Drews, 1969). Hence hypothesis I was that mediation would be more effective under stronger time pressure. It is not altogether clear how to produce a need to appear adequate, but one possibility is for the other negotiator to concede so slowly that he produces a deadlock for which he is blamed. In this circumstance, moving first would be seen as giving in to pressure from an unreasonable opponent and therefore as a sign of personal inadequacy or weakness. Hence hypothesis II was that mediation would be more effective the more slowly the other negotiator had moved toward agreement. A combination of the need to make concessions and the need to appear adequate should be especially fertile ground for a mediator's activity. Hence hypothesis III was that mediation would be especially effective under strong time pressure when the other negotiator had made few concessions over a long period of time.

The hypotheses just presented imply a design involving the following three independent variables: the presence or absence of a suggestion from the mediator, the amount of time pressure at the point of mediation, and the speed with which the other negotiator has yielded before mediation. The first variable in this design permits assessing the effectiveness of mediation, as shown by the extent to which there are more and larger

concessions when the mediator has made a suggestion than when he has not. Hypothesis I implies an interaction between the first and second variables, such that mediation is more effective under higher time pressure than under low. Hypothesis II implies an interaction between the first and third variables, such that mediation is more effective the slower the other negotiator has been before mediation. Hypothesis III implies an interaction among all three variables.

METHOD

Subjects

The subjects used in the study were male undergraduate students from the State University of New York at Buffalo. Of the 104 that were run, 4 were eliminated because they came as a group and were all close personal friends and 4 were dropped because they made offers that were of negative value to themselves in the preintervention period (to be explained later). Of the remaining 96, 64 were run during the summer session and were recruited from various courses with a promise of remuneration of at least \$2.00 "and possibly more" for their participation. The other 32 were drawn from an introductory psychology course during the fall semester. They were promised the same remuneration and, in addition, their participation satisfied a course requirement.

Physical Layout

The experimental room contained four booths along one wall. The subjects sat facing the back of a booth so that they could not see anyone in the room. Ten feet in front of the row of booths was a table, at which the recorder-mediator sat. This table was protected by a 12" barrier which prevented detection of the recorder's activities in case a subject turned around.

Task and Procedure

Each session involved four subjects and a confederate who was introduced as another subject. At the beginning of the session, a supposedly random procedure was employed to determine which one of the participants was to be the "recorder." This was biased so that the

confederate always received this role. The four subjects always received the role of "negotiator." Instructions were then presented for handling the task. The subjects were told that they would be divided into two pairs, each consisting of a buyer and a seller, who would bargain with each other without knowing one another's identity. They were to act as if they were bargainers in a wholesale market, but no specific commodity was mentioned. A hypothetical example was presented with the aid of a blackboard, showing a list of prices and the profits for the buyer and seller associated with each price. The experimenter pointed out in this example that a zone existed in which both buyer and seller could make a profit but that there was no price at which both of them could make the same profit. Questions were answered, and the subjects were then seated in the booths.

Although the subjects had been told that two of them would be buyers and two would be sellers, a notice in the booth informed every subject that he was a buyer. The booth also contained the following list of prices and profits.

<u>Price</u>	<u>Profit</u>
\$4.00	\$2.75
4.25	2.50
4.50	2.25
4.75	2.00
5.00	1.75
5.25	1.50
5.50	1.25
5.75	1.00
6.00	.75
6.25	.50
6.50	.25
6.75	.00
7.00	-.25
7.25	-.50
7.50	-.75

The mechanics of the task were described as follows: The negotiation would consist of a series of trials. At the beginning of each trial, the experimenter would call out the trial number. At this signal, all subjects were then to record an offer (a price) on a special form and hand it to the experimenter. The experimenter would take the offers to the recorder, whose job was to write them down and address them to the proper recipients. The experimenter was then supposed to deliver the offers as addressed. Each buyer-seller pair would exchange offers in this fashion until both members of the pair had written down the same price on the same trial. This would constitute an agreement.

Each subject began the experiment with \$2.00. If the final agreement resulted in a profit, he was to receive that sum in addition to the \$2.00; if the agreement involved a loss, it was to be subtracted from the \$2.00.²

A further role, in addition to record keeping, was described for the recorder: He was to attempt at all times to predict the price upon which he felt each pair would eventually agree. To aid in making these predictions, he was supposed to refer to each person's price-profit schedule, which he had on his desk. Making these predictions was supposedly important because the recorder could at any time send a note to both members of a pair telling them what he felt would be a fair price to agree upon. He was supposed to send such a note if he felt that the pair was having trouble reaching agreement. Hence the recorder could, on his own initiative, play the role of a mediator.

The negotiation was actually carried out in the fashion described except that the recorder kept the offers sent by the subjects and wrote out substitute offers in accordance with a program. After a specific number of

trials (either 5 or 20 depending on the condition), during which the program never made an offer that had greater than zero value for the subjects, the negotiation was interrupted and the experimenter made an announcement about the amount of time remaining in the session. This interruption will be referred to hereafter as the "intervention." Mediation, if it was to take place, was also introduced at this time. Negotiation was then resumed, with the program matching each concession by the subject with an equal concession on the next trial. Negotiation continued until either agreement was reached or 15 more trials had elapsed.

A questionnaire (Appendix) was administered after the negotiation which included, among other items, ten semantic-differential scales for describing one's own behavior in the negotiation and ten scales for describing "how the other negotiator behaved."

Variables and Design

Three variables were manipulated in a 2x2x2 design:

(1) The speed with which the other negotiator had moved toward agreement was manipulated in the period preceding intervention. The program (seller) always began negotiation with an offer of \$7.50, which if accepted would have resulted in a loss to the subject of 75¢. In the fast condition, the program made a 25¢ concession on the 3rd and 4th trials and remained at \$7.00 on the 5th trial. Intervention came after the 5th trial. In the slow condition, the program made a 25¢ concession on the 4th and 11th trials and remained at \$7.00 from then on. Intervention came after the 20th trial. This meant that in both conditions the other negotiator was making the same offer (\$7.00) at the time of intervention but that he had taken much more time to reach this offer and had persisted there much longer in

the slow than in the fast condition. (Preliminary research had indicated that the preintervention phase would last about 6 1/2 minutes longer in the slow than in the fast condition. To equalize the time of intervention, a neutral concept-formation filler task was introduced before the beginning of negotiation, which required about 9 minutes in the fast condition and about 2 1/2 minutes in the slow.)

(2) The time-pressure variable was manipulated at the point of intervention. In the high time-pressure (HTP) condition, the subjects were told that they had very little time left to reach agreement. A loudly ticking timer was set in motion with the understanding that a bell would soon ring to end the negotiation. In the low time pressure (LTP) condition, they were told that they had plenty of time left to reach agreement, and the timer was not set in motion. In neither case were the subjects told exactly how much time remained.

(3) The mediator variable was manipulated immediately following the announcement about time pressure. In the mediation condition, the subject received a note from the recorder suggesting that he reach agreement at a specific price. This price was always half-way between the subject's last offer and \$7.00 (the program's last offer). The note was worded as follows:

On the basis of my predictions, I would suggest that you agree on a price of _____.

A copy of this note has also been sent to your opponent.

In the no-mediation condition, no suggestion was ever received from the recorder.

The 96 subjects were randomly distributed over the 8 cells of this design, 12 per cell. As a further control, 2 out of the 4 subjects in

each session were assigned to the mediator condition and 2 to the no-mediator condition.

RESULTS

Behavior before Intervention

The period before intervention affords an opportunity for studying reactions to the other negotiator's concessions. Figure 1 portrays the average offer on each trial during this period.³ There were only two distinct conditions at this time: fast and slow concessions. It will be recalled that in the fast condition the program conceded 25¢ on the 3rd and 4th trials and in the slow condition 25¢ on the 4th and 11th trials. Since the subject and the program made their offers simultaneously, the reaction to a concession commenced on the trial immediately following that concession.

It will be noted in Figure 1 that the offers of the typical subject proceeded in cycles which were clearly tied in with the program's behavior. These can be seen most clearly in the data from the slow condition, where there were three cycles: trials 2-4, 5-11, and 12-20. Each cycle began with a substantial increase in the offer, which appears to have been a response to the program's concession on the immediately preceding trial (or to the program's first offer in the case of trial 2). Thereafter, through the cycle, the subject made little if any further progress and often began to reduce his offer somewhat, presumably because he had received no further concession from the program. The fast condition exhibited the same pattern as the slow for the first three trials, when the input for the two conditions was the same. However, in this condition, the subject's offer increased substantially on trials 4 and 5, presumably in response to concessions from the seller on the trials just preceding these.⁴

It should also be noted in Figure 1 that the average level of offer on the trial before intervention was approximately the same in both conditions.

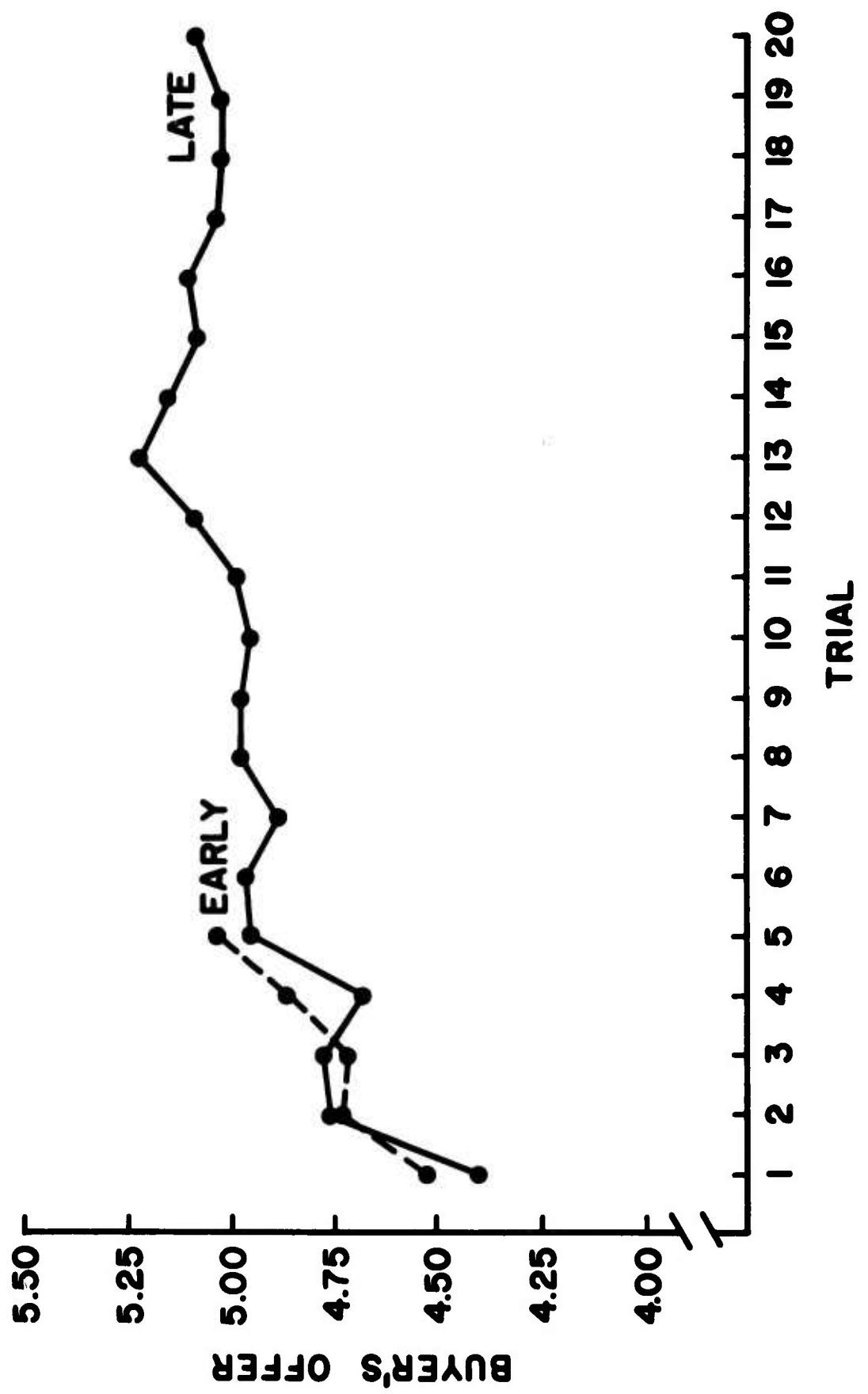


FIGURE 1. MEAN OFFER FROM THE BUYER (i.e., THE SUBJECT)
AS A FUNCTION OF TRIAL NUMBER DURING THE PERIOD
BEFORE INTERVENTION.

Furthermore the variance in the offers at this point was also approximately the same across subjects. This is fortunate because it means that the subjects in these two conditions differed in their past experience, as was intended, but not in their position at the time of intervention.

Effectiveness of the Manipulations

The purpose of the fast-slow manipulation was to produce a perception of the other negotiator as more or less unreasonable and obstreperous. Results from the postquestionnaire indicate that this goal was attained in a modest fashion. On the semantic differential ratings, the other negotiator was seen as more unyielding in the slow condition (5.54 to 4.88) and more uncooperative (5.85 to 4.98), both findings being significant at the .05 level. Since these are 7-point scales, it is evident that the other negotiator was seen as somewhat unyielding and uncooperative even in the fast condition.

The time-pressure (TP) variable was also successful. On a 7-point rating scale, subjects in the HTP condition felt that it had been more important to reach agreement quickly after the intervention (5.27) than subjects in the LTP condition (4.10). This difference was significant at the .001 level.

The mediation variable was a gross one, and all but one of the 96 subjects responded accurately to a question about whether the recorder had sent them a suggestion.

Behavior after Intervention

Two related behavioral measures were used: (a) the percentage of subjects who made a concession on the first trial after intervention ("percent concession") and (b) the average distance moved on the first trial after

intervention divided by the difference between the position of the buyer and seller at the point of intervention ("ratio concession"). (In the latter index, division by the distance between buyer and seller was employed to correct a positive skewness that was exhibited by the raw data.) The averages for these two indices are shown in Table 1 and analyses of variance in Table 2.

The percent-concession data reveal significant main effects for all three independent variables. More subjects made a concession (a) the faster the other negotiator had moved before intervention, (b) the greater the time pressures, and (c) when the mediator had intervened (as opposed to not intervening). None of the hypothesized interactions was significant although the second order interaction approached significance ($p < .20$). The averages corresponding to this interaction are in the direction predicted by hypothesis III, i.e., the mediator had maximal effect under the slow-FTP condition.

The ratio-concession data revealed significant main effects for the TP and mediator variables in the expected direction. The main effect for the fast-slow variable was not significant for these data, but the interaction between this variable and TP approached significance. The probable meaning of this interaction can best be grasped by examining the data from the no-mediator condition, where TP and the fast-slow manipulation presumably had their purest impact on behavior. It will be seen that the fast-slow variable had virtually no effect under LTP but that under HTP concessions were considerably larger in the fast than in the slow condition. Similar trends are exhibited in the percent concession data from the no-mediator condition.⁵ These trends might be summarized by saying that the subjects responded more appropriately

Table 1.
Extent of Concession on the First Trial after Intervention.

		A. Percent concession			
		Fast		Slow	
		HTP	LTP	HTP	LTP
Mediator		.833	.667	.750	.500
No Mediator		.833	.250	.333	.250

		B. Ratio concession			
		Fast		Slow	
		HTP	LTP	HTP	LTP
Mediator	Mean	.258	.127	.211	.174
Mediator	SD	.161	.195	.175	.207
No Mediator	Mean	.228	.024	.078	.013
No Mediator	SD	.143	.074	.134	.140

Table 2.
 Analyses of Variance for Data on the Extent of Concession
 on the First Trial after Intervention

<u>Source of Variance</u>	<u>df</u>	Percent Concession			Ratio Concession		
		<u>MS</u>	<u>F</u>	<u>p</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A: Fast-Slow	1	.844	5.27	.05	.039	1.54	n.s.
B: Time pressure	1	1.760	8.41	.01	.289	11.46	.01
C: Mediation	1	1.760	8.41	.01	.274	10.89	.01
AB	1	.260	1.24	n.s.	.081	3.22	.10
AC	1	.094	.45	n.s.	.039	1.56	n.s.
BC	1	.094	.45	n.s.	.015	.61	n.s.
ABC	1	.510	2.44	.15	.003	.13	n.s.
Error	88	.209			.025		

(i.e., with substantial concessions) to high time pressure when they were dealing with an opponent who had previously been noncooperative. Again, none of the interactions involving the mediator variable was statistically significant.

Ratio-concession indices were also computed for the third and fifth trials after intervention. The results for these variables were substantially the same as for the first trial, except that the main effects for all three variables were stronger than on the first trial.

Responses to the Questionnaire

An index of perceived personal adequacy was devised on the basis of the questionnaires given at the end of the experiment. This consisted of the average response on three semantic-differential self-rating scales whose content appeared to relate to personal adequacy: weak-strong, cowardly-brave, and yielding-unyielding. That these scales are interrelated is indicated by an average correlation of .38 among them (based on within-cell variance only), which was significant at the .01 level. A high score on this personal-adequacy index indicates that the negotiator saw his performance during the negotiation as having been strong, brave and unyielding.

Means and standard deviations of this index are shown in Table 3 and an analysis of variance in Table 4. The size of this index closely parallels the extent to which people actually made concessions, as shown in Table 1. Under HTP people conceded more and felt less personally adequate than under LTP. Under mediation, people conceded more and (with the exception of one condition) felt less personally adequate. This suggests a relationship between making concessions and seeing oneself as inadequate. The nearly

		Fast		Slow	
		HTP	LTP	HTP	LTP
Mediator	Mean	3.75	4.33	3.94	4.39
	SD	.98	1.02	1.11	.57
No Mediator	Mean	4.56	4.61	3.69	4.92
	SD	.89	1.06	.82	1.11

Table 4.
Analysis of Variance
of Perceived Personal Adequacy Data

<u>Source of Variance</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>p</u>
A: Fast-Slow	1	.140	.15	n.s.
B: Time pressure	1	7.973	8.61	.01
C: Mediation	1	2.779	3.00	.10
AB	1	1.584	1.71	n.s.
AC	1	.973	1.05	n.s.
BC	1	.044	.10	n.s.
ABC	1	2.557	2.76	.10
Error	88	.926		

significant ($p < .10$) second-order interaction is interesting because it is implied by the reasoning underlying hypothesis III. It was reasoned that people would be particularly concerned about personal adequacy in the slow-HTTP condition and hence particularly willing to throw responsibility for their yielding onto the mediator. Hence, in this condition, intervention by the mediator should make the negotiator more confident of his own adequacy. The validity of this line of reasoning is suggested by the data from this condition: people saw themselves as more adequate under mediation than under no mediation, in contrast to the other three conditions where they saw themselves as less adequate under mediation.

There is also more direct evidence suggesting the validity of the assumption stated in the introduction that intervention by the mediator permits a negotiator to make concessions while preserving his sense of personal adequacy. This assumption implies that ordinarily a negotiator's sense of personal adequacy will suffer to the extent that he makes concessions, but after a suggestion from a mediator, there should be no such relationship (or the relationship should be considerably muted). In other words, in the present study, there should be a larger inverse correlation between size of concession and perceived adequacy under the no-mediator than under the mediator condition. The data support this prediction: The correlation between ratio concession and the adequacy index was $-.43$ in the no-mediator condition and $.08$ in the mediator condition, this difference being significant beyond the $.02$ level. (Similar trends were found in the ratio-concession indices for the third and fifth trials after intervention, though the difference between the correlation coefficients was not significant for these two indices.) In summary, the questionnaire data

appear to support an important part of the reasoning underlying the derivation of Hypotheses I, II and III, even though these hypotheses themselves were not supported by the behavioral data.

Factor Analysis of Questionnaire Data

A principal components factor analysis with varimax rotation was performed on the answers to the questionnaire (Appendix) plus one measure of actual yielding: the extent of movement toward agreement by the fifth trial after intervention divided by the total distance that could be moved. This analysis is of special interest because it reveals the interrelations among the semantic differential ratings of oneself and the other negotiator and the relationship of these scales to actual yielding. The correlations were computed over the 96 subjects. Ten rotated factors were extracted. The results are shown in Table 5, with names for those that are interesting and interpretable. Only items with factor loading of .35 or greater are shown.

Two of the factors extracted (II and III) involved self descriptions. As is usually found with semantic-differential ratings of people, one was an evaluative dimension (self moral) and the other was a dynamism dimension (self strong and competitive). It is interesting to note that competitiveness and actual yielding load on the dynamism dimension rather than the evaluative dimension. This suggests that the norms of ethical behavior are seen by these subjects as neutral with respect to competitiveness and efforts to win in negotiation. Instead competitiveness and efforts to win are seen as matters of strength and bravery (at least, as was suggested earlier, in the no mediator case).

Three other factors (I, IV and VIII) involved descriptions of the other negotiator. Again, evaluative (other moral) and dynamism (other strong)

Table 5.

Items Loading Most Heavily on the Ten Rotated Factors Extracted
from Data from the Questionnaire and one Measure of Actual Yielding

I. Other competitive

	Factor
<u>Item</u>	<u>loading</u>
other competitive	.77
other unyielding	.76
other cold	.65
did not enjoy	
working with other	.42
other foolish	.36

II. Self strong and competitive

	Factor
<u>Item</u>	<u>loading</u>
self strong	.73
self competitive	.69
self brave	.66
self unyielding	.47
self active	.38
actual yielding (actual behavior)	-.37

III. Self moral

	Factor
<u>Item</u>	<u>loading</u>
self moral	.78
self honest	.44

IV. Other strong

	Factor
<u>Item</u>	<u>loading</u>
other brave	.63
other strong	.62
other active	.52

(continued)

Table 5. (continued)

VI. Positive attitude			
V. Ease of decision		toward experience	
		Factor	Factor
<u>Item</u>	<u>loading</u>	<u>Item</u>	<u>loading</u>
ease of decision		would go out of	
after intervention	.72	way to help other	.56
ease of decision		liked experiment	.50
overall	.70	enjoyed working	
		with other	.47
		self warm	.46
VII. (unclear)		VIII. Other moral	
		Factor	Factor
<u>Item</u>	<u>loading</u>	<u>Item</u>	<u>loading</u>
disappointed if		other honest	.81
no agreement	.56	other moral	.71
self wise	.55	other peaceful	.51
IX. Self and other hostile		X. (unclear)	
		Factor	Factor
<u>Item</u>	<u>loading</u>	<u>Item</u>	<u>loading</u>
self hostile	.67	dislike other making same amount	
other hostile	.42	of money as oneself	.62
self cold	.37	actual yielding	.45

dimensions emerged. It is interesting that the other's perceived competitiveness did not appear in the strength dimension, as it did in the case of the self ratings. Instead it formed the nucleus of a third dimension (other competitive). When the other was unwilling to concede, he was not seen as brave and strong but rather as cold and a little foolish. One did not enjoy dealing with such a person.

Two other factors are interesting. Factor VI (positive attitude toward the experiment) expresses a general feeling of warmth toward the experience and toward the other negotiator. Factor IX (self and other hostility) contains both one's own and the other's perceived hostility. This is the only factor with significant loadings on perceptions of oneself and the other negotiator. It is not clear whether the relationship between these perceptions reflects a tendency to become hostile when the other is perceived as hostile, a projection of one's own hostility onto the other, or both.

DISCUSSION

Reactions to the Opponent's Concession Rate

The preintervention data (Figure 1) suggest that the typical subject adopted a strategy of conceding when his opponent conceded and either failing to concede or backtracking to an earlier level when his opponent failed to concede. The observation that there were more concessions after intervention in the fast than in the slow condition seems part of the same strategy, since the opponent had conceded much more recently in the fast condition. This apparent strategy is reminiscent of a finding by Chertkoff and Conley (1967) that more frequent concessions on the part of one negotiator elicit more frequent concessions on the part of the other. Our finding and that of Chertkoff and Conley might be construed as contradicting the result obtained by Liebert, Smith, Kieffer and Hill (1967) and by Pruitt and Drews (1969), that negotiators are unresponsive to the size of their opponent's concessions, moving just as far when the opponent makes a large concession as when he makes a small one. However this contradiction can easily be reconciled if it is assumed that negotiators tend to reciprocate their opponent's rate of concession (making a concession when he makes one) but not the size of his concessions.

The latter part of this proposed reconciliation is called into question by an additional result from the Chertkoff and Conley study, that the negotiators matched the size as well as the frequency of their opponent's concessions. A methodological difference may underlie this further complication. In the Chertkoff study the opponent conceded only every so often, while in the Liebert and Pruitt studies he made a concession on every trial. Hence it might be argued that negotiators match the size of their opponents'

concessions when these concessions come irregularly but not when they come regularly. Perhaps, when the opponent concedes regularly, people feel no need to reward him for large concessions because his concessions seem almost inevitable. All that seems necessary to maintain his cooperation is to make regular small counterconcessions, to indicate good will. On the other hand, when the opponent concedes infrequently, his loyalty may be in doubt and it may seem necessary to reward him for large concessions by making large ones in return.

While interesting, these speculations are inadequately supported at present, and further research on the impact of concession rate is clearly needed.

Effects of Time Pressure and Mediation

The results support the conclusion that concessions are larger and more frequent under high time pressure. This finding is identical to one obtained earlier (Pruitt and Drews, 1969). Trends in the data suggest that time pressure has more effect when the other has conceded rapidly than when he has conceded slowly. This reflects an apparent reluctance to react appropriately to time pressure when the other has been uncooperative. Support was also found for the conclusion that a third party can stimulate concessions by suggesting an equitable solution to both negotiators. The hypotheses about conditions that enhance the effect of a mediator were not supported by significant results, though there were trends in the percent-concession data supporting the hypothesis that mediation is more effective under high time pressure when the other negotiator has conceded slowly than when he has conceded rapidly.

Though the hypotheses about conditions affecting reception of the mediator's suggestions found little support, some of the questionnaire results offered tentative support for the reasoning underlying these predictions. Intervention by the mediator appears to have wiped out the relationship between making concessions and viewing oneself as inadequate (as weak, cowardly and yielding). This finding supports the contention that mediation provides the negotiator a "face-saving device" whereby he can retreat without feeling that he has capitulated.

Nearly significant trends in the questionnaire data also suggest, as hypothesized in the introduction, that this face-saving feature of mediation may be maximal under the conflictful condition in which there is a motive not to concede, because the other has been obdurate, yet time pressures are strong. Under this condition, the negotiators felt more adequate when the mediator had intervened than when he had not, in contrast to the other three conditions where the mediator apparently induced feelings of inadequacy. Why the face-saving feature of mediation should be especially strong under this condition and yet not produce larger or more frequent concessions is unclear. Perhaps the fear of seeming inadequate was not sufficiently motivating in this experiment to outweigh "rational" (or other) considerations in the decisions about concessions. In other words, the feelings of adequacy and inadequacy reported in the questionnaires may not have been sufficiently important to affect behavior.

REFERENCES

Chertkoff, J. M., and Conley, Melinda. Opening offer and frequency of concession as bargaining strategies. Journal of Personality and Social Psychology, 1967, 7, 181-185.

Liebert, R. M., Smith, W. P., Keiffer, Miriam, and Hill, J. H. The effects of information and magnitude of initial offer on interpersonal negotiation. Unpublished manuscript, 1967.

Pruitt, D. G., and Drews, Julie L. The effect of time pressure, time elapsed and the opponent's concession rate on behavior in negotiation. Journal of Experimental Social Psychology, 1969, in press.

Stevens, C. M. Strategy and Collective Bargaining Negotiation. New York: McGraw-Hill, 1963.

Young, O. R. The Intermediaries: Third Parties in International Crises. Princeton, N. J.: Princeton University Press, 1967.

FOOTNOTES

¹This investigation was supported by Contract N00014-67-C-0190 from the Office of Naval Research. A pilot study for this experiment was performed by a workgroup, lead by the first author, at the First European Summer School on Social Psychological Problems in Organizations, held in The Hague July 15-August 11, 1965. Subsequent development of the study took place during meetings of the Transnational Working Group on the Dynamics of Conflict. The authors wish to thank Dr. Allan I. Teger and Mr. Joseph Maciejko for their advice at various points in the project.

²In retrospect, the decision to make the basic pay considerably larger than the winnings that could ordinarily be obtained as a result of a negotiated agreement seems unwise from the viewpoint of motivating the subjects to do their best in the negotiation.

³The line marked "early" in Figure 1 is based on the fast condition and the line marked "late" on the slow condition.

⁴A test of significance for the difference between the early and late conditions in profile across the first five trials shows that there is something more than chance at work here ($p < .01$).

⁵Considering only the no-mediator data, the interaction between TP and fast-slow was significant beyond the .07 level for both the percent-concession and the ratio-concession data.

APPENDIX. POSTQUESTIONNAIRE

Name _____

1. Please explain why you handled the negotiation the way you did. Discuss both earlier and later phases.

(space was left here)

2. What do you think the other negotiator was trying to do?

(space was left here)

3. Assume that you learned how much money the other negotiator made out of the agreement you reached. How satisfied or dissatisfied would you be with each of the following results?

Answer all three questions by placing a number from one to seven in each of the three spaces to indicate how you would feel about each of the three possible outcomes.

- 1 very satisfied
- 2 moderately satisfied
- 3 slightly satisfied
- 4 indifferent
- 5 slightly dissatisfied
- 6 moderately dissatisfied
- 7 very dissatisfied

If the other student made about 25¢ less than I made, I would feel ____.

If the other student made the same amount I made, I would feel _____.

If the other student made about 25¢ more than I made, I would feel _____.

4. Did the recorder send a suggestion to you and the other negotiator about the price upon which you should agree? (circle one)

5. If your answer is "yes" to question 4, how much were your offers influenced by this suggestion? (circle one number)

1 2 3 4 5 6 7
not at all moderately very much

6. If your answer is "yes" to question 4, in what way(s) were your offers influenced by this suggestion?

(space was left here)

Appendix--2 (continued)

Why were they so influenced?

(space was left here)

7. Please describe how you behaved during the negotiation. Make this description by filling out the ten rating scales listed below. Make the rating as follows for each of the ten scales:

- 1 very closely related to left-hand term
- 2 quite closely related to left-hand term
- 3 only slightly related to left-hand term
- 4 neutral or completely irrelevant
- 5 only slightly related to right-hand term
- 6 quite closely related to right-hand term
- 7 very closely related to right hand term

Record your rating by circling the appropriate number on each scale. Do not skip any items....you should make ten circles in all.

passive 1:2:3:4:5:6:7 active
dishonest 1:2:3:4:5:6:7 honest
hostile 1:2:3:4:5:6:7 peaceful
wise 1:2:3:4:5:6:7 foolish
cooperative 1:2:3:4:5:6:7 competitive
weak 1:2:3:4:5:6:7 strong
brave 1:2:3:4:5:6:7 cowardly
moral 1:2:3:4:5:6:7 immoral
cold 1:2:3:4:5:6:7 warm
yielding 1:2:3:4:5:6:7 unyielding

8. Now describe how the other negotiator behaved, using similar ratings on the scales below.

(same scales as in Question 7)

9. Looking back at the negotiation, how disappointed would you have been if agreement had not been reached? (If you did not reach agreement, how disappointed are you?) (circle one number)

1 not at all disappointed	2	3	4 moderately disappointed	5	6	7 very disappointed
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Appendix--3 (continued)

10. If you should participate in another experiment where you had to work with someone, how would you feel about working with the person with whom you negotiated in this experiment? (circle one number)

- 1 I believe that I would very much dislike working with this person in an experiment
- 2 I believe that I would dislike working with this person in an experiment
- 3 I believe that I would dislike working with this person in an experiment to a slight degree
- 4 I believe that I would neither particularly dislike nor particularly enjoy working with this person in an experiment
- 5 I believe that I would enjoy working with this person in an experiment to a slight degree
- 6 I believe that I would enjoy working with this person in an experiment
- 7 I believe that I would very much enjoy working with this person in an experiment

11. At one point in the negotiation, the experimenter stopped the procedure and made some remarks about the way the negotiation would end. Estimate the number of offers you had made before that point. (Write estimate in the blank)

12. After the remarks which the experimenter made about the way in which the negotiation would end, how important did you feel it was to reach agreement quickly? (circle one number)

1	2	3	4	5	6	7
not at all important			moderately important			very important

13. Looking at the entire negotiation, how difficult or easy was it to decide what offers to make? (circle one number)

1	2	3	4	5	6	7
very difficult			neither difficult nor easy			very easy

Appendix--4 (continued)

14. Right after the remarks which the experimenter made about the way in which the negotiation would end, how difficult or easy was it to decide what offer to make? (circle one number)

1	2	3	4	5	6	7
very difficult			neither difficult nor easy			very easy

15. After the remarks which the experimenter made about how the negotiation would end, how many more offers did you guess you would be permitted to make? (If you can't remember precisely, write a number in this space reflecting your state of mind at the time.)

16. If you were able to learn the identity of the other negotiator, to what extent would you (outside the experiment) go out of your way to do something nice for him? (circle one number)

1 would go considerably out of my way

2

3 would go moderately out of my way

4

5 would go slightly out of my way

6

7 would not go out of my way

17. Rate your reaction to the experiment by circling one number.

1	2	3	4	5	6	7
liked it very much			indifferent to it			disliked it very much

18. What would you think was the purpose of this experiment?

(space was left here)

19. Was there anything about the experimental procedure that annoyed you?

yes no

If "yes" what was it?

(space was left here)

Appendix--5 (continued)

If "yes" to question 19, how annoyed were you? (circle one number)

1	2	3	4	5	6	7
slightly annoyed			moderately annoyed			very annoyed

20. Were you at all suspicious about the procedure of the experiment?

yes no

If "yes," what were you suspicious of and why?

(space was left here)

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13. ABSTRACT Management Summary

The suggestion by a mediator of a point of settlement half-way between the positions of two negotiators was found to produce substantial concessions. Concessions were also produced by high, as opposed to low, time pressures; and there were more concessions when the other negotiator had moved rapidly toward agreement than when he had moved slowly. Intervention by a mediator was found to relieve the sense of personal inadequacy that inheres in making concessions, especially when the negotiator was experiencing high conflict about whether to make a concession. The extent to which the other negotiator is thought to be hostile to oneself was closely related to the extent of one's hostility toward him.

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